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Relishing Role, Rep. Brown Is Mr. Science on Capitol Hill

In the science and technology policy sector, the most provocative, against-the-tide speech-maker in Washington these days is a veteran of 29 years in Congress who has never made it to the political big time, Rep. George E. Brown Jr., Chairman of the House Science, Space, and Technology Committee. He appears greatly satisfied with where he is.

At age 73, Brown, witty, likeable, avuncular, reigns unchallenged as Capitol Hill's elder statesman, devoted patron and critic of science and technology, as well as the dour philosophical muser about where they are taking us.

Brown's vigorous assertion of his Chairmanship and career-long interest in science-related issues have made him the scientific community's most visible contact in Congress. Eager for all the friends it can corral, the science establishment often invites him to speak at major professional meetings, and bestows upon him medals and certificates of honor. On more than one occasion, Brown has genially responded

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with "Don't think I feel this is undeserved"—or words to that effect—before launching into a gloomy discourse on the perils and promises of science and technology. The standard output of other politicians at such proceedings is oratorical mush laced with expressions of sympathy for the unmet wants of researchers.

Though the elders of science fondly regard Brown as a special friend on Capitol Hill, no one in public life today is as caustic about the heartfelt values of the scientific community as Congressman George Brown. If Bill Proxmire in his Senatorial rampages had uttered the same words, palpable despair would have infested the Cosmos Club that very day. Brown's diatribes, however, are usually taken as the well-intended words of a good, if misguided, friend.

In a report last year by his Committee's Task Force on the Health of Research, Brown asserted that the scientific community "resists change ... seeks additional resources as a cure for internal stress ... develops political (i.e., subjective and partisan) strategies to promote its agenda and demonstrate the need for special treatment ... unconsciously gives its own values primacy...."

Brown's Task Force report horrified biomedical mandarins by observing that their budget demands are essentially

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Research Funding Picture Suddenly Turns Cloudy

As the Clinton Administration lurches into its fourth month, the view is murkier than ever on the most crucial and eternal issue for the scientific establishment—money.

A prudent approach would be not to expect too much. The President has not been lavish in his overall spending proposals for research and development, concentrating, instead, on reassigning funds, rather than enlarging them significantly. And Congress is in an unusually obstreperous and unpredictable state, with Senate Republicans unified by their minority status while the affection of majority Democrats for their President is not rising. Perot has been effectively assailing him for wanting to spend too much and cut too little. Many Members are jittery about how budget votes

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In Brief

The number of foreign students in American universities is on the rise again, NSF reports, and the biggest group is from the People's Republic of China, with 40,000 in 1991; Japan was second, with 37,000, and Nationalist China third, with 34,000. Over one-fourth of all graduate students in science and nearly half in engineering are from abroad. The data are in *Foreign Participation in US Academic Science and Engineering: 1991*, NSF 93-302, 127 pp., no charge: NSF, Division of Science Resources Studies, 1800 G St. NW, Washington, DC 20550; tel. 202/634-4787; fax 202/634-4683.

Deaths attributed to AIDS totaled 172,000 between June 1981 and June 1992, according to the Centers for Disease Control. The total number of AID cases was reported to be 253,000. Estimates of HIV infections are far higher, however, generally running over 1 million.

Stanford University, a leader in extracting commercial income from campus-based research, says the 1991 take was $18 million, and expects even more this year. But Stanford's Office of Technology Licensing says the future is uncertain because of the approaching expiration of DNA and frequency-modulation patents. The Office says its takes 15 percent and the balance is equally divided among the inventor, the inventor's department, and the department's school.

Retiring President Frank Press wasn't there last week for the National Academy of Sciences annual meeting, in Washington. He was in Tokyo to receive the Japan Prize, Japan's highest award for science and technology, which comes with a medal, a certificate, and $400,000.

. . . NSF Has Hopes for Getting That $207 Million

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will affect their reelection chances.

Clinton's proposals for support of research and development were written into a relatively small interim budget for this fiscal year and the big annual federal budget for fiscal 1994, which begins next October 1. The first budget, the so-called Stimulus Package, was unexpectedly blocked by intransigent Republicans, with a potential loss of several hundred million dollars in R&D funds. However, the outcome is not certain, since many roads lead to the Treasury.

Along with some $16 billion for various federal programs designed to spark quick economic growth, the Stimulus Package contained $207 million for the National Science Foundation and $117 million for the National Institute of Standards and Technology. Both amounts were to be added to their current budgets, though coming this late in the fiscal year, it was recognized that a good deal of the spending would spill over into the following year.

With the Stimulus Package filibustered to a halt and finally withdrawn by Clinton, the NSF-NIST funds would appear to be lost. But perhaps not.

NSF's view of the matter is that its 1994 budget was predicated on the assumption that the 1993 base would include the $207 million, bringing the total up to $2.940 billion. If NSF doesn't get it this year, its budget strategists say, the sum should be included in next year's budget to bring the amount up to the President's request, $3.180 billion. Otherwise, they lament, the 1994 budget will be $207 million below the request.

At NIST, which has not disclosed a counterpart of this fanciful accounting, a spokesman merely said that the Stimulus money is considered lost for this year and hopes are focused on the 1994 budget.

The main R&D thrust of that budget, as promised in the Presidential campaign, is a redirection of funds from the military to the civilian, with heavy emphasis on industrial technology and collaboration between industrial firms and federal laboratories.

Clinton's five-year budget projection calls for substantial shifts along those lines, with federal spending for civilian R&D rising from $27.9 billion in 1993 to $36.6 billion in 1998. But given the fate of the Stimulus Package in the first three months of the Administration, five-year projections do not invite confidence.

The outlook is also clouded by a curious slighting of basic research in the Administration's budget scenarios. A fiscal standstill for the National Institutes of Health has drawn an odd explanation from the President's Science and Technology Adviser, John Gibbons. He has told various forums that NIH has been well treated in the recent past and can expect to prosper in the 1995 budget.

Many in the scientific community look upon federal budget disappointments as a product of political hostility, ignorance, or both. Scientists often assert that research provides a fabulous return on investment, and therefore should be financed to the hilt. When it isn't, they conclude that something serious is amiss.

Advisory Cutbacks Hit NIH

A White House edict directing all federal agencies to eliminate one-third of their advisory committees by September 30 is causing agony at the National Institutes of Health, where the peer-review workload has grown so heavy in recent years that recruitment has become a problem. The National Science Foundation isn't happy about it, either, but is more flexible in its peer-review rites than NIH, which relies exclusively on face-to-face meetings in Bethesda. The cutbacks are standard items in Presidential grandstanding about frugality and will actually save little money.

The reality is that the great majority of Congressmen have a high regard for science and related activities. But it's now a universal of American politics that times are hard and all government-supported activities must scrimp. However, few politicians believe that politics has inflicted ruinous financial neglect on the scientific enterprise. Scientific whining long ago became part of the capital's ambience.

Congress is now deep in the process of reviewing Clinton's 1994 budget requests. The deficit, an emotional, highly exploited issue that defies popular comprehension, looms large in fiscal affairs, putting pressure on the Administration's spending designs. After a fast start, Clinton has made little headway with his argument that budget cuts and increased spending must proceed together to rejuvenate the economy.

The deficit is the bogeyman of American politics, and cuts are in, especially if they affect someone else. A common speculation on Capitol Hill is that the Space Station and the Superconducting Super Collider would be wiped out if a vote were held today.

The final returns, for R&D and almost everything else, will be in by summer's end. SGR's advice on predictions: Ignore them. But it's probably wise not to expect too much.—DSG

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Brown's Sermon on a "Social Technology Policy"

From Rep. Brown's address, "The Mother of Necessity: Technology Policy and Social Equity," to the annual AAAS Science and Technology Policy Colloquium, April 16, in Washington.

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Once basic human needs are met, satisfaction with our lives cannot be said to depend on the amount of things we acquire, use, and consume. If this were so, modern US society would be the happiest in history, an assertion that would be difficult to support.... In terms of the social contract, we justify more growth because it is supposedly the most efficient way to spread economic opportunity and social well-being. I am suggesting that this reasoning is simplistic and specious....

A social technology policy might actually involve the proscription of some types of technological solutions to some types of social problems, in order not to distort the marketplace of human values. This is not as insane as it sounds. The Japanese do it in a limited way. Japanese industry accepts the cost of reduced productivity in order to assure fuller employment for its work force. In the context of a social technology policy, recent studies proving that US workers are still the most productive in the world—by far—could be bad news, not good news.

Other aspects of a social technology policy might encourage the development of technologies that promote decentralization of political power and economic resources, in order to minimize the control that large institutions have over the lives of individuals. Economies of scale would thus be viewed as a double-edge sword providing short-term profit, while locking us into long-term, inflexible patterns of technological evolution.

The federal government has spent 50 years subsidizing research and development on nuclear fission and nuclear fusion, while largely neglecting research in a wide range of renewable and generally decentralized energy sources that could help the world meet its energy needs in a fashion at once smaller scale, more flexible and more equitable.

The reason we did this is obvious: those who had a stake in nuclear power—be it economic, political, or intellectual—were those already in power. Perhaps we can learn from this mistake, which has implications for an almost incredible range of social and economic phenomena, from dependence on imported oil to deterioration of the environment....

Plato, in *The Republic*, discussed the concept of justice in society, and concluded that it could not be defined as the self-interest of the rich and powerful, which was the conventional wisdom of his time—as it is ours—because the rich and powerful do not know what is in their self-interest. I sometimes think that scientists and engineers, even if not rich and powerful, may have the same problem. Science and technology can and must be advanced in concert with the search for more justice in society.

. . . Mega-Project Backer Who Scoffs at Faith in Technology

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insatiable because additional money "stimulates graduate enrollments, and leads to growth in the number of researchers that inevitably outstrips the ability of the federal government to provide adequate support."

Brown is a unique phenomenon at the intersection of science and politics; no labels exist to categorize him in terms of conventional party politics or the traditional values of science.

In the science-policy realm, he's a multiple personality. At the lectern, the Riverside, California, Democrat worries like a Luddite caricature about the march of science and technology, denouncing, for example, the nation's "literally mindless process of technological evolution and economic expansion..."

But when it comes to boosting federal funding for science and technology, George Brown, a senior Democrat, was regularly in the political vanguard, often against his own party colleagues, in support of the biggest mega-projects of the Reagan-Bush years, the Space Station and the Superconducting Super Collider. On more than one occasion, he helped rescue them from well-deserved extinction.

In an address on April 16 to the American Association for the Advancement of Science, Brown once again shook the establishment, this time with an address titled "The Mother of Necessity: Technology Policy and Social Equity." In characteristically graceful style, he questioned the nation's hot pursuit of economic growth and adulation of technology as a means to achieve it.

However, at the same time, it might be noted, Brown is pushing legislation designed to increase American industrial competitiveness, especially by promoting collaboration between government and industrial researchers.

Speaking to the annual AAAS colloquium on federal R&D spending plans, Brown declared that "more technology-based economic growth is not necessary to satisfy humanity's elemental needs, nor does more growth quench our thirst for consumption. In terms of the social contract," he continued, "we justify more growth because it is supposedly the most efficient way to spread economic opportunity and social well-being.

"I am suggesting that this reasoning is simplistic and often specious," he said. Noting traditional religious teach-

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. . . "Rolling Your Eyes at My Utopian Ramblings"

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ings on the perils of material pursuits, he remarked: "At this point, many of you are probably rolling your eyes and wondering how someone who has spent the last 30 years of his life enmeshed in the hardheaded world of Washington politics can take such utopian ramblings seriously, let alone espouse them in public."

"This is my answer," he said, launching into an impassioned critique of American Cold War policies and practices. "For the past 50 years," Brown said, "this nation has focused its resources on building weapons of inconceivable destructive power, and we have viewed the rest of the world as a chess board designed to play out our own ideological struggle. We propped up governments that murdered nuns, priests, nurses, and children and we provided high-technology weaponry to dictatorships.... Our vision during the Cold War was cynical in the extreme," Brown continued. "'Mutual assured destruction' was a US philosophy of international relations; the 'Peacekeeper' was a ballistic missile that carried nuclear warheads.

"Now the Cold War is over and our excuse for this behavior is gone," Brown said, adding that "We need a new and better vision. I'm exploring ways to define that vision. I would be satisfied with small but definite steps in a new direction—but what direction? Neither technology nor economics can answer questions of value.... Progress is meaningless if we don't know where we're going."

Speeches rarely move Washington. So, the real question is whether Brown's views achieve political effect through his Chairmanship of the Science, Space, and Technology Committee and his seniority in the House. The answer is that he's respected by his colleagues and regarded as a sound source of advice on sci-tech issues. But, in fact, he wields surprisingly little power.

His Committee's title is far broader than its legislative jurisdiction, extending to the National Science Foundation, NASA, and the National Institute of Standards and Technology—leaving out defense, biomedical, and agricultural research, which account for about 80 percent of federal R&D programs. Jurisdiction over energy-related research is confusingly shared with other committees. In any case, Brown's Committee can legislate that this or that should or should not happen, but the crucial control of money belongs to the Appropriations Committee.

Brown feasts on science-policy issues because he's deeply interested in science and its applications. On his official biography, he lists a bachelor's degree in "industrial physics." In 1965, when he joined the precursor of the Committee he now chairs, science was not regarded as a promising line of interest for advancing a Congressional career. He was a leader in the long struggle to establish the Congressional Office of Technology Assessment, and since its founding, in 1972, has served on its board of Congressional overseers. His ascension to the Chairmanship of the Science, Space and Technology Committee came only two years ago, following the unexpected decision of Chairman Robert Roe to become head of the Public Works Committee. For Brown, the Chairmanship was the crowning moment of a long Congressional career in which the vagaries of seniority had denied him the visibility and courting that come with Committee chairs.

Brown's championing of science pays few political dividends in his home district. He has often lamented that the nearby Riverside campus of the University of California pays him no heed. In the 1992 election, a national committee of scientific notables endorsed his reelection—a sign of esteem that the savants otherwise accorded only the Clinton-Gore ticket. But there's nothing to suggest that Brown gained votes from that gesture.

Some newcomers to the George Brown phenomenon suspect that his views reflect the influence of a science-bashing Rasputin somewhere in his Congressional entourage. Brown, like almost everyone else in politics, does indeed employ ghosts, both for putting words on paper and batting ideas around.

But Brown has a long record of expressing societal and moral concerns that extend far beyond his direct legislative responsibilities. Staff ghosts have come and gone over the years, without any evident change in Brown's world view.

He was first elected to Congress in 1962 on a tide of anti-Vietnam war sentiment, traveled extensively to speak against the war, and boasted years later that "I never voted a dime to support that conflict. I voted against every military appropriation that had money in it for Vietnam throughout the 1960s."

In a speech to the British Labor Party in 1967, Brown said the conflict was "releasing the most deadly qualities in the American character: messianic faith in a self-appointed moral mission, arrogance in the exercise of unprecedented power...."—a foreshadowing, perhaps, of his later concerns about the downside of technology.

In a 1986 speech to an Earth Peace Assembly sponsored by a Maryland religious organization, Brown challenged the necessity for Reagan's rearmament program, declaring, "Our economy is so much stronger than the Soviets' that there is no comparison. Theirs is going downhill except for those protected parts which they use for military purposes only and, because of that, their civilian economy is in a state of shambles."

Brown added, "Jesus did not say just love your friends or the people in your community or the people in your country. He said love everybody, including your enemies."

In concluding his address to the peace group, he said: "I have quit worrying about the political consequences of thinking in unorthodox terms, because I am reaching the age where I do not really care what happens to me politically. As a matter of fact, if I could find some good way to be nailed to the cross for this cause, I would do it."—DSG

Fearing Curtains, DOE Labs Strive for Conversion

An unavoidable sense of the ridiculous spares defense conversion from being complicated by schemes to redeploy battleships as tugboats or tanks as taxis. Not so, however, with the preeminent scientific leftovers of the Cold War, the nuclear-weapons laboratories, wards of the Department of Energy, now seeking survival in civilian chores.

Administered for the Defense Department by DOE, the weapons-research empire consists of three mammoth laboratories, Los Alamos and Sandia, in New Mexico, and Lawrence Livermore, in California. With staffs of about 8000 apiece and budgets of $1 billion, the nuclear triumvirate has been swathed in deep secrecy for over 40 years.

Small add-ons of civilian research, particularly in the biological and environmental sciences, are conducted at the labs in the open tradition of non-military science. But weapons design and testing have long dominated their agendas. There's no doubt that the labs have achieved success in their principal mission, formulating bigger and better explosions from smaller and more reliable bombs and projectiles.

The first fusion explosion was produced by a "device" that was actually the size of a small house. Over decades, fission and fusion warheads have been miniaturized, produced by the thousands, and fitted to missiles, field artillery, and other delivery systems. A prodigious volume of genius and resources went into these accomplishments, but with the self-dismemberment of the Soviet Union, what can the weapons labs do for an encore? The favored answer, civilian research, comes from many quarters, especially the Congressional delegations that represent the labs.

For many years, Washington has tinkered with the notion that the sprawling and expensive federal research establishment—some 700 labs in addition to DOE's nuclear facilities—could be hitched to civilian industry, and thus contribute to the holy cause of industrial competitiveness. Expenditures on the labs, civilian and military, is close to one-third of the $76 billion that the federal government will spend next year on research and development.

To increase the economic return from these expenditures, Congress passed the Technology Transfer Act of 1986, and President Reagan issued an Executive Order titled "Facilitating Access to Science and Technology." Simplified procedures were established for industry to survey research projects in the federal labs and pick up promising ideas, as well as for collaboration between federal and industrial researchers. The new rules applied to all the federal labs, but political attention has focused on the DOE's nuclear facilities because of their high costs and fading mission.

The public-relations crews at DOE headquarters and the labs cheerfully project the appearance of scientific reincarnation along civilian lines. However, the results so far have been negligible, according to independent reviews conducted by Congressional and industrial groups.

The Council on Competitiveness, with a blue-chip membership from high-tech industry and big-league academe, concluded in a report last year that the federal labs, particularly DOE's, lack the mindset to meet the cost-and time-driven needs of industry. [*Industry As a Customer of the Federal Laboratories*, 32 pp., $15; Council on Competitiveness, 900 17th St. NW, Suite 1050, Washington, DC 20006; tel. 202/785-3990; fax 202/785-3998.]

Observing that "Success in technology transfer is not included as part of the labs' reward system," the Council added, "Although some labs have embraced competitiveness as one of their priorities, many administrators and researchers feel threatened by this new goal and continue to conduct business as usual."

The Council recommended that "If after 3-5 years the labs have not made a significant contribution to America's industrial technology needs, funds should be directed to other organizations that are explicitly set up to accomplish this goal and have successful track records."

Presidential candidate Bill Clinton expressed the same idea in a campaign policy paper issued last September, *Technology: The Engine of Economic Growth*. [SGR Editor's note: Sorry, like most election material, this one is gone with the wind.] The similarities between the Clinton and Council on Competitiveness documents is not coincidental. Incest at the staff level is common in the production of this literature.

After expressing hopes and support for fruitful collaboration between the federal labs and private industry, the Clinton campaign paper said the partners should develop "measures to determine how well the technology transfer process is working and review progress after three years. If these goals have not been met, industry and the labs should reevaluate their involvement, and funds should be redirected to consortia, universities and other organizations that can work more effectively with industry for results."

The suggested sunset provision has not been heard of since Clinton's arrival at the White House.

Negative findings about efforts to retread the labs were reported recently by the General Accounting Office, which surveyed 21 federal research agencies to assess their collaboration with industry under the 1986 technology transfer legislation [*Technology Transfer: Barriers Limit Royalty Sharing's Effectiveness*, GAO/RCED-93-6; 128 pp., no charge; USGAO, PO Box 6015, Gaithersburg, Md. 20884-6015; tel. 202/512-6000; fax 301/258-4066].

The GAO reported that federal researchers displayed little interest in commercial work. Bigger royalties might arouse them, the GAO speculated, but it noted that "Many of these researchers described scientists as motivated more by pride and a desire to be recognized by their peers."

With their big budgets, staffs and scientific mystique, the nuclear weapons labs persist as the untouchables in an

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German-US Council Created to Support Research

A pet project of German Chancellor Helmut Kohl got off the ground April 15 with announcement of the formation of the German-American Academic Council. Though endorsed a few weeks earlier by the Chancellor and President Clinton at a meeting in Washington, and greeted with optimism, the new organization actually went through a difficult gestation. Its long-term prospects are by no means certain.

The Council, sponsored by influential research organizations in the two countries, starts up with an $11.5 million budget for four years provided by the German Ministry of Research and Technology. Headquartered in Bonn, with an office in Washington, the Council is supposed to serve as a base for promoting US-German scholarly relations, with an emphasis on science and technology.

Kohl, who is reported to be deeply concerned about a loosening of German-American scientific ties, initially proposed creation of a bilateral institution to President Bush in 1991, and suggested that it be named the German-American Academy. However, the title impinged on the proprietary feelings of the US National Academy of Sciences, which was approached early for getting the project off the ground. It was promptly agreed that another name would be necessary.

The State Department was puzzled at the outset by Kohl's strong interest in a subject normally attended to by middle-ranking bureaucrats. It was also concerned about getting into a bilateral link when Europe was supposed to be coming together. But when the Chancellor made it clear that he really cared about this one, the State Department concluded why not. One of the stated conditions on the American side was that no costs would be incurred by the US government. How long hardpressed Germany will remain financially committed post-Kohl is another matter.

The nomenclature task, along with general planning, was turned over to a bilateral group of academics discreetly named the German-American Preparatory Group on a New US-German Academic Institution. Its report reflected Kohl's concerns, noting that after 40 years of US-German academic cooperation, "Fewer scholars and scientists are acquiring first-hand knowledge of American science or of German science or cultivating professional ties across the Atlantic." It also attended to concerns about the bilateral nature of the new Council by suggesting an eventual branching out to other countries.

Along with the National Academy of Sciences, a principal sponsor of the Council is Germany's Alexander von Humboldt Foundation, which opened an office in Washington last year. Joining them are the American Council of Learned Societies, the American Academy of Arts and Sciences, the Social Sciences Research Council, the German Research Association, and the Max Planck Society.

Job Changes & Appointments

William Happer, Director of the Office of Energy Research at the Department of Energy, will be leaving that post "within a few weeks or a few months," according to a DOE spokesman. Appointed by President Bush in 1991, Happer is reported to have collided with members of Vice President Gore's entourage on an environmental issue. Coming in to replace him, SGR hears, is ***Martha Krebs***, Associate Director of the Lawrence Berkeley Laboratory.

Sandra Faber, Professor of Astronomy at the University of California, Santa Cruz, will be named Director of the National Science Foundation, according to NSF sources. The first woman to hold the post, she will succeed ***Walter Massey***, who left last month for a vice presidency of the University of California system.

John Holmfeld has stepped down as Executive Director of the Council of Scientific Society Presidents, and plans to work on a writing project.

Peter Raven, Director of the Missouri Botanical Garden and Home Secretary of the National Academy of Sciences, is chairing an Academy committee advising the US Interior Department on the creation of a National Biological Survey. ***Thomas Lovejoy*** is on leave from the Smithsonian to work on the project at Interior [SGR April 1].

Nuclear Labs

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otherwise shrinking military establishment. In support of the survival strategy, a bill recently introduced by Rep. George E. Brown Jr. (D-Calif.), Chairman of the House Science, Space, and Technology Committee, would reassign the DOE labs to work on "green technologies" and other politically lovable goals [HR 1432, The Department of Energy Laboratory Technology Act].

The unfortunate reality, however, is that the bomb labs, created and nurtured for military purposes, have scarcely any potential for the new world of domestic social goals and intense commercial competition. At $1 billion each, the labs are on a par with the biggest research universities. In terms of intellectual and economic dividends, academe—financially wilted these days—is clearly a better bet for Washington's money.

The bomb labs should be let down gently, with proper concern for the thousands of staff members who have effectively served their country. But it's time for taps for these costly vestiges of the cold war.

This article is adapted from an op-ed column by SGR Editor Greenberg published April 18 in the Washington Post *and on various dates in other newspapers.*

MORE IN PRINT: Building Campus Labs, Ethics, Etc.

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Toward More Efficient Building Methods for Academic Science Facilities (52 pp., $6), from the Higher Education Colloquium on Science Facilities, report of a survey purporting to show that industry does it faster and cheaper than academe in constructing comparable research facilities. The Colloquium, a Washington-based combine of university brass and members of Congress, was set up in 1990 in response to the enduring drought of federal funds for academic facilities. A concurrent inspiration was opposition to pork-barrel Congressional funding of hometown labs, the assumption being that reduced building costs would lower the political pressure. Drawing on responses from nine high-tech firms, 16 architectural and engineering design companies, and 59 public and 30 private universities, the study concludes that "Corporations tend to be more adept than universities at organizing the management of a construction project." Cost data are offered in support of that conclusion, along with suggestions for emulating industry's building methods. However, given the managerial ineptitude and colossal losses at many major corporations, claims of superior performance invite caution.

Order from: Higher Education Colloquium on Science Facilities, 512 Constitution Ave. NE, Washington, DC 20002; tel. 202/547-8715; fax 202/546-4187.

Sustaining Excellence in Science and Engineering in the Former Soviet Union [FSU]: Report of a Conference (60 pp., no charge), summary of proceedings in February at the National Academy of Sciences (NAS), where an "Action Plan" was devised for assisting research in the ex-USSR. Among the major ingredients of the Plan: "bear in mind the twin objectives of strengthening international science and engineering and developing democratic, market-oriented institutions," base awards on "competitive merit review" and direct support to individuals rather than institutions. Participants were from the NAS, the American Association for the Advancement of Science, George Mason University, the International Science Foundation for the Former Soviet Union, the American Physical Society, the National Science Foundation, and the Smithsonian Institution.

Order from: National Academy of Sciences, Office for Central Europe and Asia, 2101 Constitution Ave. NW, Washington, DC 20418; tel. 202/334-2644; fax 202/334-2614.

Professional Ethics Report (8 pp., no charge), quarterly newsletter, now in its sixth year, from the American Association for the Advancement of Science, focused on developments in government research agencies and professional societies concerning ethical standards, misconduct regulations, etc. The publication is a joint product of the AAAS Scientific Freedom, Responsibility and Law Program in collaboration with the Committee on Scientific Freedom & Responsibility Professional Society Ethics Group.

Order from: American Association for the Advancement of Science, Scientific Freedom, Responsibility and Law Program, 1333 H St. NW, Washington, DC 20005; tel. 202/326-6798; fax 202/289-4950.

ORI Newsletter (7 pp., no charge), a new quarterly, from the Office of Research Integrity, established in the Department of Health and Human Services last year as successor to the broken-down Office of Scientific Integrity, which was located at and mainly concerned with delinquencies involving the National Institutes of Health. ORI, with authority over all research supported by the Public Health Service, absorbed OSI as well as the Office of Scientific Integrity Review, located up the line at HHS. The newsletter reports on changes in regulations, decisions in misconduct cases, publications, committee rosters, etc.

Order from: Office of Research Integrity, Division of Policy and Education, US Public Health Service, 5515 Security Lane, Suite 700, Rockville, Md. 20852; tel. 301/443-3400.

What's Happening in the Mathematical Sciences (49 pp., single copies free; domestic shipping and handling $7 [!] apiece; $6.50 extra for foreign orders), a new annual, in stylish magazine format, from the American Mathematical Society, presenting 10 articles intended to "inform the general public about the beauty and power of mathematics." Support for the publication is credited to the Exxon Education Foundation and the Alfred P. Sloan Foundation.

Order from: American Mathematical Society, Membership and Customer Services, PO Box 6248, Providence, Rhode Island 02940-6248; tel., 1/800-321-4AMS, or 401/455-4000.

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IN PRINT: Clinton R&D Plan, Federal Employment

The publications listed are obtainable as indicated—not from SGR.

A Competitiveness Assessment of the President's FY 1994 Federal R&D Budget (8 pp., no charge), high marks for the Clinton R&D program, from the Council on Competitiveness, Washington-based outpost of high-tech industry, research-intensive universities, and even a few representatives of organized labor. Tables showing R&D budgets and trends are provided to support the Council's cheers for R&D Clinton style. "The budget signals a significant reorientation of federal technology policy," the report states, modestly adding that Clinton's proposals are "very much in line with recommendations made by the Council on Competitiveness during the past few years."

The Council does not acknowledge that the Clinton design is essentially the Bush-Reagan R&D trend enlarged and enthusiastically embraced, rather than just cautiously tolerated as it was in the prior Administrations. The Council expresses approval for Clinton's commitment to reduce military R&D spending in favor of the civilian side and for added emphasis on manufacturing R&D—developments that commenced pre-Clinton; nor does it note the skimpy treatment of basic research, particularly in the biomedical fields, a shortcoming that's rattling the NIH constituency. A press release attached to the report quotes Erich Bloch, NSF Director under Reagan and now a Distinguished Fellow of the Council, describing the Clinton budget as "clearly a big step in the right direction." The Council's assessment was prepared before Senate Republicans blocked the Clinton Stimulus Package, which contained substantial increases for NSF and the National Institute of Standards and Technology. The Clinton R&D future is thus a bit less certain than it was just a few weeks ago.

Order from: Council on Competitiveness, 900 17th St. NW, Suite 1050, Washington, DC 20006; tel. 202/785-3990; fax 202/785-3998.

Improving the Recruitment, Retention, and Utilization of Federal Scientists and Engineers (120 pp., $24, plus $4 for shipping one copy, 50 cents each for more), from the National Academy of Sciences, notes progress under the 1990 Federal Employees Pay Comparability Act in enhancing the attractiveness of professional posts in federal agencies, which now employ some 112,000 scientists and about the same number of engineers. They're easy to hire now, the report observes, but it predicts that competition for talent will increase as the economy improves; the report also notes a coming wave of retirements from federal service.

Among its recommendations: establishment of a Senior Research and Development Service to provide an upward career path for scientists and engineers who don't want to go into administration; also, reconsideration of ethics guidelines that scare federal researchers away from involvement in professional societies. Not addressed are the disruptive, penny-saving employment freezes and staff reductions that poll-watching Presidents routinely proclaim as evidence of frugality. The report, prepared by an Academy committee chaired by Alan K. Campbell, former Chairman of the US Civil Service Commission, was requested by the soon-to-expire Carnegie Commission on Science, Technology, and Government. Previous Academy reports on federal R&D manpower are named in the report.

From the Institute of Medicine, health-policy wing of the Academy: ***Assessing Health Care Reform*** (76 pp., $17, plus $4 for shipping one copy, 50 cents each for more), a flimsy product that wastes an opportunity to illuminate what is perhaps the most fundamental issue in the coming debate over reorganizing the economics and administration of the American health-care system: managed competition versus a tax-financed single-payer system. Intended to be "useful to all who are developing or assessing options for reform," the report cautiously and briefly alludes to but never uses the term "managed competition," the Clintons' favored and increasingly controversial basic formula for administering a national system of universal health care. A person associated with the committee that prepared the report told SGR, "They didn't want to get into that."

The rest of the report is studded with safe banalities, such as: "The design of specific policies to constrain costs and improve the value received for health care spending will require decisions about a large number of complex questions, many of which do not have obvious answers." The report is attributed to the IOM's Committee on Assessing Health Care Reform Proposals, a 10-member group of academics chaired by Walter J. McNerney, Professor of Health Policy, Kellogg Graduate School of Management, Northwestern University.

Also from the Academy: ***Solid-Earth Sciences and Society*** (346 pp., $49.95), with a colorful cover and appealing illustrations, in dimensions associated with coffee-table display, a big review of the status, ambitions, and support of the earth sciences, prepared with the support of several foundations and the assistance of major professional societies in the earth sciences. Included are recommendations for a "major commitment to the study of the whole earth system, emphasizing interrelationships among all parts of the earth," and increased research cooperation internationally and between academe and industry. The report looks like an all-hands effort of the earth-sciences community, which provided membership for a score of contributing panels. The overall effort was under a 31-member Committee on Status and Research in the Solid-Earth Sciences, chaired by Peter J. Wyllie, Caltech.

Order from: National Academy Press, 2101 Constitution Ave. NW, Washington, DC 20418; tel. 1/800-624-6242; in the Washington, DC, area: 202/334-3313.

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